PATENT APPLICATION
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF	)
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RICK L. ADKINS ET AL	) GROUP NO.: 1796
	)
SERIAL NUMBER: 10/687,156	) EXAMINER: Rabon A. Sergent
	)
FILED: October 16, 2003	) CONFIRMATION NO.: 7891
	)
TITLE: NOVEL UNSATURATED MACROMERS FOR PREFORMED STABILIZERS AND POLYMER POLYOLS	)

REPLY BRIEF

This Reply Brief is in response to the Examiner's Answer dated April 2, 2009.

In the Examiner's Answer dated April 2, 2009, on page 7, under section (10) Response to Argument: "Response to Arguments Pertaining to Issue I:" it was stated that:

> "[T]here is absolutely no requirement that the pre-formed stabilizer of the instant claims be a dispersion, and it is noted that the claims are completely silent with respect to such features such as solids content, the presence of particles, or particle sizes."

Appellants respectfully submit that as previously pointed out in their Appeal Brief filed on June 27, 2008, pre-formed stabilizers are described on P2, L19 through P3, L4; on P26, L27-31; and on P27, L1-8 as being co-polymer dispersions which have a low solids content, and which preferably have a small particle size that enables the particles to act as a seed in the process of preparing a polymer polyol. It is readily apparent from these portions of the present application, as well as being common knowledge to one of ordinary skill in the art, that pre-formed stabilizers are not soluble in a base polyol. Thus, the Examiner's position is incorrect as the present claim language is limited to a process for preparing a pre-formed stabilizer (Claim 11) and a pre-formed stabilizer (Claim 22).

Also on page 7 of the Examiner's Answer dated April 2, 2009, it was stated that:

> "...appellants' discussion of the working examples totally ignores the remaining teachings within the reference. The position is taken that the teachings of the reference are not limited to its examples, and it is again noted that quantities of components that satisfy appellants' claimed amounts are set forth at page 10, lines 10-12; page 12, lines 14 and 15; and page 13, line 34 through page 14. These citations have been previously set forth by the examiner; however, appellants have not addressed them."

Appellants respectfully disagree. In this regard, Appellants direct the Board's attention to page 7, 1st full paragraph through page 8, 1st full paragraph of their Appeal Brief filed on June 27, 2008. As set forth therein, it is apparent that the Examiner is selectively reading the disclosure of the Hoffman reference. A critical difference between the dispersants of this reference and the presently claimed pre-formed stabilizers is that these dispersants are soluble in a base polyol (see page 3, lines 25-26 and page 4, lines 28-29 of the Hoffman reference) while the pre-formed stabilizers of the present invention are not.

In addition, as pointed out in the paragraph bridging pages 7 to 8 of their June 27, 2008 Appeal Brief, on page 10 of this reference, it is disclosed that the relative amounts of vinyl-terminated adduct and ethylenically unsaturated monomer (if used) are such that the dispersant has the required solubility (see lines 5-10 on page 10), and that too much of the ethylenically unsaturated monomer will result in the formation of an insoluble dispersant and this is clearly described as "undesirable" (see lines 19-21 on page 10). Thus, any relative quantities for the various components of the dispersants that are disclosed in the Hoffman reference must result in a dispersant that is soluble in the base polyol to be useful therein. Any other construction of this reference, including that asserted by the Examiner, clearly destroys the purpose or intent therein, and is thus, clearly improper.

On page 8, under section titled "Response to Arguments pertaining to Issue II" of the Examiner's Answer dated April 2, 2009, it was stated that the Holeschovsky et al reference

> "... has been relied upon solely for its teachings explaining that the pre-formed stabilizers in WO 87/03886 (see column 7, lines 28-30) may alternatively be employed."

It is respectfully submitted that the disclosure in the Holeschovsky et al reference that the pre-formed stabilizers from WO 87/03886 may be also be prepared (see column 7, lines 27-28 of the '731 patent) clearly identifies these as "not preferred". It also expressly discloses that these are "soluble preformed stabilizers" (see column 7, line 27; emphasis added). Appellants therefore submit that it is evident that the Holeschovsky et al reference also clearly recognizes the soluble preformed stabilizers of the Hoffman reference as being different than the conventional preformed stabilizers described in the Holeschovsky et al reference. If these are indeed different as Appellants previously stated and presently maintain, then these can not anticipate the presently claimed invention.

Thus, for the reasons as discussed above with respect to the Hoffman reference, the substitution of these preformed stabilizers for those of the Holeschovsky et al reference does not result in the presently claimed invention.

Appellants respectfully submit that since the type of preformed stabilizer in the Hoffman reference as disclosed by the Holeschovsky et al reference is not believed to be of particular relevance to the presently claimed invention, the discussion by Appellants' in their Appeal Brief of the various other types of stabilizers disclosed by the Holeschovsky et al reference was appropriate.

It was further stated by the Examiner in the April 2, 2009 Examiner's Answer (see last full sentence on page 8, and sentence bridging pages 8-9) that:

> ..."appellants' argument with respect to the molecular weight of the low intrinsic unsaturation monol is not well taken, because it is not seen that this argument is relevant to the relied upon disclosure within the Holeschovsky et al reference. The argued monol appears to be relevant to the alternative embodiment of the invention that is not being relied upon by the examiner. "

Appellants respectfully submit that as stated in the 2nd full paragraph on page 13 of their Appeal Brief filed on June 27, 2008, the only possible overlap between the presently claimed invention and that of the Holeschovsky et al reference is when the stabilizer precursor of this reference is a monol. Thus, contrary to the Examiner's position, the monol issue is relevant and should be considered by the Board.

On page 9, under the section titled "Response to Arguments Pertaining to Issue IV" the Examiner stated that:

> "[I]t is not seen that the term, pre-formed stabilizer, conveys any definitive limitation to the claims."

As Appellants discussed above with respect to the Hoffman reference, pre-formed stabilizers are described on P2, L19 through P3, L4; on P26, L27-31; and on P27, L1-8 as being co-polymer dispersions which have a low solids content, and which preferably have a small particle size that enables the particles to act as a seed in the process of preparing a polymer polyol. Thus, the term preformed stabilizer as used throughout the specification and the present claims does convey a specific composition with specific properties.

The Examiner further stated (see paragraph bridging pages 9-10 of the April 2, 2009 Examiner's Answer) that:

> "[A]ppellants' have additionally argued that the present invention requires a quantity of macromers that exceeds more than six times that which is described in the Yu reference. In response, the examiner has noted that Example 2 discloses the use of less macromer than is claimed; however, the examiner has pointed to teachings within columns 9 and 10 that support the examiner's position that the amount of macromer relative to ethylenically unsaturated monomer may be varied widely. Accordingly, since the reference is considered to address the issue of varying the quantities of the macromer and the monomers, such a modification would have been obvious to the skilled artisan."

Appellants direct the Honorable Board's attention to column 9, lines 24-27 which indicates that Example 2 of this reference illustrates the effectiveness of the macromer as a dispersant in a dispersion polymerization. With regard to the

variations of the amounts of macromer relative to the ethylenically unsaturated monomer that is disclosed at columns 9-10 of the Yu reference, Appellants addressed this in their June 27, 2008 Appeal Brief on pages 20 and 21. Contrary to the Examiner's position and statement above, the Yu reference does not teach that these may be "varied widely". Rather, it simply states that the ratio of conventional vinyl, acrylic or diene to macromer (VII) may be varied. See column 10, line 11. It also states that the number of ECH units in the macromer may be varied (see column 10, lines 11-13). As a result of these variations, the resultant copolymers may have a wide range of properties which range from hard plastic to soft elastomeric (see column 10, lines 14-15). Thus, the construction of the Yu reference by the Examiner is not a reasonable representation of the disclosure therein. Accordingly, Appellants maintain their position that a six-fold increase in the amount of ethylenically unsaturated macromer required by the present claims compared to that of the Yu reference is more than a "slight variation" that one skilled in the art might consider when "optimizing" the teachings of the Yu reference.

In view of the above remarks, Appellants maintain their positions as set forth in their Appeal Brief that each of the rejections under 35 U.S.C. § 102(b) and/or U.S.C. § 103(a) of the present claims is in error. It is respectfully requested that each of these rejections be reversed and Claims 11-16, 19-27 and 29-31 be allowed.

Respectfully submitted,

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